

## Authentic Assessment in the Classroom

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In today's brave new world of scientifically standardized educational measurement, concerns about the biases inherent to norm-referenced tests of student efficacy, particularly among less conventional learners, are receiving more and more critical notice. Proponents of standardized, norm-reference testing opine that these distortions can themselves be measured and their effects mitigated in the scoring calculations (Sanders and Horn, page 8). Obviously, detractors express their disagreement. This ongoing debate over the utility of standardized testing opposed to other forms of student assessment is likely to endure into the foreseeable future. The purpose of this paper is to explore the methodology, *the do's and don'ts*, of one alternative to norm-criteria testing, *authentic assessment*, as it relates to student enrichment and the gauging of classroom learning experiences only. No judgment regarding the viability of authentic assessment as a testing alternative beyond the classroom will be put forward.

Anita Woolfolk defines authentic assessment as the, "Measurement of important abilities using procedures that simulate the application of these abilities to real-life problems" (Woolfolk, page 545). In other words, rather than requiring that a student display his or her knowledge about a specific topic in a 'choose the only correct answer' format, authentic assessments seek to determine the level of a student's aptitude through the performance of teacher established tasks. This opens the door to assessment styles and opportunities, potentially allowing the instructor customize assessment on a student-by-student basis.

Authentic assessments also present significant advantages for many students. Consider the advantages alternative testing offers students who frequently suffer from test anxiety or those

who simply learn differently? A recent online article, *Test-Stressed Out: Strategies for Improving Attitudes, Scores* by Cara Bifile, featured at [www.nea.org](http://www.nea.org), quotes Michigan State University's Dr. Natalie G. Olinghouse discussing testing factors that contribute to student test anxiety caused by written assessments:

“The fact that writing assessments often do not imitate real-life writing situations -- which permit individual topic choice and involve a real audience and a process of planning, writing, editing, and revising -- adds complexity to the task. The structure of such exams can inhibit or constrain the recursive process necessary for quality writing.”

The position of Dr. Olinghouse's contribution to the aforementioned article is that the best way to prepare for the variables presented by the written portions of state and national examinations is to practice writing in the classroom frequently, but her quote also speaks to the potential value of an assessment that creates a real-life writing situation. The message implicit is that the best writing practice for a student to undertake involves personal subject selection, planning, and execution, all with the review of an actual audience (the format for an authentic assessment) in mind. In other words, when students are given real-life reasons to perform a task, tasks gain authenticity. As such, student attitude and commitment increases resulting in more accurate representations of ability than are otherwise generated.

Such an enhancement of a student's personal involvement in his or her learning also paves the way to greater expressions of artistry and logic. To illustrate this point, which assessment example has the greatest potential to gauge a fifth through eighth grade student's scientific understanding?

A) Given a stream with a steady current of three mph, which of the following substances is subject to the greatest erosive effects?

1. pea-sized sedimentary aggregate
2. moderate grain quartzite sand
3. shale based silt

--or--

B) Students will design and conduct an open-ended investigation using a variety of earth materials to answer a question posed by the teacher: How does the erosion of sand compare with the erosion of gravel? After producing evidence that addresses this question, they will generate their own question that could be answered with further scientific inquiry.

(<http://butterfly.ctl.sri.com/pals/tasks/5-8/Erosion/>)

Success on question A requires that a student participate in rote memory drills, but as long as the student focuses on maximizing test performance, achievement without understanding is possible, if not probable. Attainment of the goal in question B requires student engagement and very likely results in comprehension of multiple scientific principles, such as weight, mass, inertia, and resistance as well as properties concerning erosion. Considering such exercises, the advantages surrounding authentic classroom tasks and assessments for visual and kinesthetic learners become obvious. Still, the definition of success is a matter of opinion.

Beyond offering a range of student empowering learning possibilities, authentic assessment also provides strong venues for student reflection. Authentic tasks revolve around student documentation of achievements. Often in the form of a portfolio, these compilations may contain written work, photographic records, creative production, and with an ever expanding range of classroom technologies, computer generated models and projects, all of which can bear witness to student achievements. Described as a “Holistic Development” by the ELON University Website, <http://www.elon.edu/students/portfolio/make.asp>,

“Reflection doubles every learning opportunity- the actual experience plus your reflection on it. Reflection helps develop a deeper understanding of one's total experience and the interconnections among academics, co-curricular activities, community involvement, and personal and career objectives.”

Further, as Woolfolk notes, student portfolio building offers distinctions, similar to formative and summative assessments, by way of *process portfolios*, used by teachers and students alike to document progress, and *final portfolios* which express a student's overall attained level of accomplishment (Woolfolk, page 563-565).

Though such individualized assessing prospects do offer the classroom teacher great room for self-designed performance evaluations, it should be noted that standards are available to guide teachers in the selection of tasks and assessments. One such site, Performance Assessment Links in Science (PALS) was developed by The Center for Technology and Learning at SRI International. The PALS site (<http://butterfly.ctl.sri.com/pals/>) develops tasks and assessments answering to National Science Education Standards (NSES), state standards for Texas and Illinois, and frameworks from The Full Option Science System (FOSS) and The National Council of Teachers of Mathematics (NCTM). These standards and more can be located at PALS; ensuring interested educators that assessment plans will meet the requirements of established criterion. PALS offers a wide range of task suggestions already tailored to various standards, as well as customizable assessment charts, training packets, and publications.

The critical issue revolving around authentic assessment is the actual evaluation process. Obviously, there are possibilities for bias to skew the results of such testing. A teacher need only have disproportionately low or high expectations to obfuscate the quality of student achievement. The attached rubric, created at <http://rubistar.4teachers.org>, highlights some of the many

possibilities that might be chosen to evaluate a student manufactured state map.

## Making A Map : Mapping Your State

Teacher Name: **Mr. Skelton**

Student Name: \_\_\_\_\_

CATEGORY	4	3	2	1
<b>Neatness of Color and Lines</b>	All straight lines are ruler-drawn, all errors have been neatly corrected and all features are colored completely.	All straight lines are ruler-drawn, most errors have been neatly corrected and most features are colored completely.	Most straight lines are ruler-drawn, most errors have been neatly corrected and most features are colored completely.	Many lines, corrections of errors, and/or features are not neatly done.
<b>Spelling/Capitalization</b>	95-100% of words on the map are spelled and capitalized correctly.	94-85% of the words on the map are spelled and capitalized correctly.	84-75% of the words on the map are spelled and capitalized correctly.	Less than 75% of the words on the map are spelled and/or capitalized correctly.
<b>Labels &amp; Features - Neatness</b>	90-100% of the required items are labeled.	89-80% of the required items are labeled.	79-70% of the required items are labeled.	Less than 70% of the required items are labeled.
<b>Knowledge Gained</b>	When shown a blank base map, the student can rapidly and accurately label at least 10 features.	When shown a blank base map, the student can rapidly and accurately label 8-9 features.	When shown a blank base map, the student can rapidly and accurately label 6-7 features.	When shown a blank base map, the student can rapidly and accurately label fewer than 6 features.

Notice however, that the top and bottom grading categories are subjective in nature. To truly evaluate the student map, many other useful categories might be necessary, for instance, to gauge

the complexities of information resourcing requirements, the detail of the mapping, or the student's experience at the beginning of the project. Such a task may require that a process piece be completed first.

Clearly, for the teacher, the use of authentic assessment must be a reflective process. The business philosophy pioneered by W. Edwards Deming, the Plan-Do-Check-Adjust (PDCA) cycle addresses the need to develop plans to meet standards and then make the adjustments necessary to reach them. At the core of Deming's PDCA cycle is a requisite *understanding of where we are starting from* with an eye on *planning* to reach an objective or meet a standard, *doing* the plan, *checking* its efficacy and *adjusting*, or reflecting on what has been observed (Dennis, page 69-72). The end reflection leads naturally to the following and more complicated tasks on the path of continuing education. Deming's philosophy speaks to Vygotski's "zone of proximal development" by clarifying a central starting point and can serve as a reflective bridge connecting the specific demands of educational standards and the individualized tasks and assessments inherent to the concept of authentic learning.

Authentic assessment offers too versatile an instructional repertoire to be ignored. In some respects, it is just a new name being applied to an age old learning custom, *learning by doing*. Giving the student a reason to learn material should never be underestimated as an important contributor to the learning process. Further, authentic assessment gives unprecedented leeway to the student for self-evaluation, an important motivator providing much needed concrete applicability to much of the learning experience. Such experiential learning also provides a path of tangible progress allowing educators and students alike to reflect on what

exercises best promote mutual efficacy. A last and important consideration, largely ignored by participants in the ongoing standardized versus authentic assessment debate, is that both styles of measurement have their place in the classroom and can, and should, be used in tandem. Catering to as large a number of learning styles as practicable maximizes student learning potential.

### Bibliography

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